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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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Andreas Noack

9771-005US

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79526

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EXAMINER

MI, QIUWEN

ART UNIT

PAPER NUMBER

1655

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PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

<b>Office Action Summary</b>	<b>Application No.</b> 10/595,993	<b>Applicant(s)</b> NOACK, ANDREAS	
	<b>Examiner</b> QIUWEN MI	<b>Art Unit</b> 1655	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 02 September 2008.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1 and 12-30 is/are pending in the application.
- 4a) Of the above claim(s) 25-30 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1 and 12-24 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 6/7/2007 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |                                                                                        |                                                                   |
|----------------------------------------------------------------------------------------|-------------------------------------------------------------------|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)            | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)   | Paper No(s)/Mail Date. _____                                      |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date <u>10/19/2006</u> .                                              | 6) <input type="checkbox"/> Other: _____                          |

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## **DETAILED ACTION**

### **Election/Restrictions**

Claims 1, and 12-30 are pending.

Applicant's election of Group I, claims 1 and 12-24 in the reply filed on 9/2/2008 is acknowledged. Because applicant did not distinctly and specifically point out the supposed errors in the restriction requirement, the election has been treated as an election without traverse (MPEP § 818.03(a)).

Claims 25-30 are withdrawn as they are directed toward a non-elected invention groups.

Claims 2-11 are cancelled. **Claims 1, and 12-24 are examined on the merits.**

### **Specification/Abstract Objections**

Applicant is reminded of the proper language and format for an abstract of the disclosure.

The abstract should be in narrative form and generally limited to a single paragraph on a separate sheet within the range of 50 to 150 words. It is important that the abstract not exceed 150 words in length since the space provided for the abstract on the computer tape used by the printer is limited. The form and legal phraseology often used in patent claims, such as "means" and "said," should be avoided. The abstract should describe the disclosure sufficiently to assist readers in deciding whether there is a need for consulting the full patent text for details.

The language should be clear and concise and should not repeat information given in the title. It should avoid using phrases which can be implied, such as, "The disclosure concerns," "The disclosure defined by this invention," "The disclosure describes," etc.

In the instant case, the abstract should be in a single paragraph instead of three paragraphs.

### **Claim Rejections –35 USC § 112, 2<sup>nd</sup>**

The following is a quotation of the second paragraph of 35 U.S.C. 112:

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The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 1, and 12-24 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

The term "**primarily** oxidized material" in claims 1 and 18 is a relative term which renders the claim indefinite. The term "primarily" is not defined by the claim, the specification does not provide a standard for ascertaining the requisite degree, and one of ordinary skill in the art would not be reasonably apprised of the scope of the invention.

There are insufficient antecedent basis for this limitation in the claims:

“the product of the primary thermo-oxidative treatment” in claim 1c, line 2;

“the coarser particles” in claim 12, line 1;

“the waste gases” in claim 19, line 1;

“the primary oxidate” in claim 19, line 2;

“the product of the secondary thermo-oxidative treatment” in claim 21, line 2;

“the ground substance” in claim 23, line 2;

“the remains of olive” in claim 24, line 3 (Applicant is suggested to recite “olive remains” instead);

“the remains of sugar beets” in claim 24, line 3 (Applicant is suggested to recite “sugar beet remains” instead).

Claim 1 recites "a process for producing multi-component mineral substance preparations..", but claim 1d only recites “performing a secondary thermo-oxidative treatment in a second temperature treatment zone”, without mentioning about anything about producing

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multi-component mineral substance preparation, thus the metes and bounds of claim 1 are rendered indefinite.

Claim 15 recites "...the secondary thermo-oxidative treatment is performed quasi-continually", and the term "quasi-continually" is indefinite, and the metes and bounds of the claims are thus uncertain.

Claim 16 recites "enriched oxygen", and it is uncertain what Applicant means by "enriched oxygen". Therefore, the metes and bounds of claims are rendered vague and indefinite. The lack of clarity renders the claims very confusing and ambiguous since the resulting claims do not clearly set forth the metes and bounds of the patent protection desired.

All other cited claims depend directly or indirectly from rejected claims and are, therefore, also, rejected under U.S.C. 112, second paragraph for the reasons set forth above.

### **Claim Rejections –35 USC § 103**

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1, and 12-24 are rejected under 35 U.S.C. 103(a) as being unpatentable over Coates et al (US 1,729,162), in view of Schranzer (US 20040126460).

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Coates et al teach a process of making vegetable char comprising carbonizing vegetable material by destructive distillation; and heating the char in the presence of air at temperatures substantially upwards of 550 °C., meanwhile controlling the amount of air to burn out of the char most of the hydrogen and a limited amount of carbon (claim 1). To describe a typical operation more specifically, sugar cane trash, consisting essentially of the leaves stripped from sugar cane, is placed in a retort or muffle of a furnace, and is heated rapidly up to about 500-550 °C (page 2, 1<sup>st</sup> column, lines 9-15). The solid product of this operation is then cooled to about atmospheric temperature (thus conditioning the primarily oxidized material) (thus experiencing a cooling by at least 50 °C (page 2, 1<sup>st</sup> column, lines 25-30). The solid material may also be washed with a dilute acid such as 5% hydrochloric, in order to remove lime and material soluble in such acid solution (thus adding an organic acid to the ground substance in a diluted environment (page 2, 1<sup>st</sup> column, lines 30-35). Whether the material is to be used in this form or it is to be further heated is at this stage comminuted, preferably to about 60 to 80 mesh-size. The crushed material (thus grinding mechanically the product) is then heated to bright redness, or say, to about 800 °C to 850 °C (thus the secondary thermo-oxidative treatment is performed at a higher temperature than the primary thermo-oxidative treatment, typically at least 10 °C above the temperature of the primary thermo-oxidative treatment) (page 2, 1<sup>st</sup> column, lines 50-60). The material is then transferred to a closed receptacle and allowed to cool in the absence of air (page 2, 2<sup>nd</sup> column, lines 80-85). The material can, however, be further activated by raising its temperature to a reddish white or white heat, say, about 900-950 °C (thus transporting the product of the primary thermo-oxidative treatment to a second temperature treatment zone, and performing a secondary thermo-oxidative treatment in a second temperature treatment zone continually or quasi-

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continually), before the cooling digesting and drying operations referred to. This heat does not have to be maintained for a long period, about 10-15 minutes being found to give excellent results (page 2, 2<sup>nd</sup> column, lines 90-97). It carries sufficient insoluble ash, mainly silica, to possess a rugged structure so that it will not crumble too easily, but will maintain its granular condition during use and on revivifying its filtering powder (page 2, 2<sup>nd</sup> column, lines 102-107).

Coates et al do not teach using raw organic material, or producing multi-component mineral substance preparations from thermo-oxidative treatment; neither do Coates et al teach using performing the secondary thermo-oxidative treatment with enriched oxygen.

Schranzer teaches a method for preparing a consumable nutritional mineral supplement composition comprising the steps of: (a) providing uncontaminated plant material; (b) oxidizing by burning said uncontaminated plant material down to an ash form; (c) reacting said ash form of said uncontaminated plant material with organic acids, resulting in a reacted form of plant ash in solid form, solution form or suspension form; (d) isolating said reacted form of plant ash in solid form, solution form or suspension form; and (e) processing said isolated reacted form of plant ash for the purpose of making a consumable nutritional mineral supplement composition (claim 1). Schranzer also teaches a method by which plant ash is reacted with individual acids or mixtures of acids to obtain the naturally occurring minerals and trace elements from the ash for the purpose of producing palatable mineral supplements for consumption by human and animal. Uncontaminated plant material (thus raw organic material) can be specifically selected for high concentrations of certain minerals to provide specific supplements high in the desired mineral or minerals (see Abstract). Schranzer further teaches that plant ash is readily available at low cost

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and contains all elements higher animals and humans require or are adapted to use, in total more than 60 elements [0003].

It would have been *prima facie* obvious for one of ordinary skill in the art at the time the invention was made to use raw organic material, or producing multi-component mineral substance preparations from thermo-oxidative treatment from Coates et al since Coates et al teach that uncontaminated plant material (thus raw organic material) can be specifically selected for high concentrations of certain minerals to provide specific supplements high in the desired mineral or minerals. Schranzer further teaches that plant ash is readily available at low cost and contains all elements higher animals and humans require or are adapted to use, in total more than 60 elements. Since both of the invention yielded beneficial results in using plant ash or plant char, one of ordinary skill in the art would have been motivated to make the modifications and combine the two inventions together. Regarding the limitation of performing the secondary thermo-oxidative treatment with enriched oxygen, the result-effective adjustment in conventional working parameters is deemed merely a matter of judicious selection and routine optimization which is well within the purview of the skilled artisan.

From the teachings of the references, it is apparent that one of the ordinary skills in the art would have had a reasonable expectation of success in producing the claimed invention.

Thus, the invention as a whole is *prima facie* obvious over the references, especially in the absence of evidence to the contrary.

## **Conclusion**



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No claim is allowed.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Qiuwen Mi whose telephone number is 571-272-5984. The examiner can normally be reached on 8 to 5.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Terry McKelvey can be reached on 571-272-0775. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

QM

/Michele Flood/  
Primary Examiner, Art Unit 1655